

January 2, 2014
1420 East 6th Ave.
P.O. Box 200701
Helena, MT 59620-0701

Environmental Quality Council
Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks
Fisheries Division
Endangered Species Coordinator
Native Species Coordinator - Fisheries
Missoula Office
Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Montana Wildlife Federation
Mile High Conservation District, P.O. Box 890, Whitehall, MT 59759
Wayne Hadley, 1016 Eastside Road, Deer Lodge, MT 59722
Montana River Action, 304 N 18th Ave., Bozeman, MT 59715
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Watershed Restoration Council, 1002 Hollenback Road, Deer Lodge, MT 59722
Ueland Ranches, Inc., 100 Cattle Drive, Ramsay, MT 59748

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment (EA) prepared for the Future Fisheries Improvement Program. The Program tentatively plans to provide partial funding to restore approximately 800 feet of a channelized and deeply entrenched reach of Browns Gulch to a 1,400-foot meandering channel with an accessible floodplain. Browns Gulch, a tributary to Silver Bow Creek, supports a mixed assemblage of salmonids, including westslope cutthroat trout. The intent of the project is to enhance habitat and water quality in a degraded reach of Browns Gulch for both native and non-native fish. The project site is located on property owned by Ueland Ranches, Inc. about 4 miles northwest of the city of Butte in Silver Bow County.

Please submit any comments that you have by 5:00 P.M., February 3, 2014 to Montana Fish, Wildlife & Parks at the address listed above. The funding for this project through the Future Fisheries Improvement Program is contingent upon approval being granted by the Fish, Wildlife and Parks Commission. If you have any questions, feel free to contact me at (406) 444-2432. Please note that this draft EA will be considered as final if no substantive comments are received by the deadline listed above.

Sincerely,

Mark Lere, Program Officer
Habitat Bureau
Fisheries Division
e-mail: mlere@mt.gov

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife & Parks
Browns Gulch Channel Restoration Project

General Purpose: The 1995 Montana Legislature enacted sections 87-1-272 through 273, MCA that directs the Montana Fish, Wildlife and Parks (FWP) to administer a Future Fisheries Improvement Program. The program involves providing funding for physical projects to restore degraded fish habitat in rivers and lakes for the purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. Additionally, the 1999 Montana Legislature amended statute sections 87-1-273, 15-38-202 and Section 5, Chapter 463, Laws of 1995 to create a bull trout and cutthroat trout enhancement program. This legislation was amended again in 2103 to open the program to all native fish species (statute section 87-1-283). The program now calls for the enhancement of native fish through habitat restoration, natural reproduction and reductions in species competition by way of the Future Fisheries Program.

The Future Fisheries Improvement Program is proposing to provide partial funding to a project calling for the restoration of an 800-foot reach of Browns Gulch, a tributary to Silver Bow Creek. This reach of stream, as it flows through property owned by the Ueland Ranches, Inc., was historically channelized and currently is experiencing substantial bank erosion. This project proposes to replace this degraded 800-foot reach with about 1,400 feet of newly constructed meandering channel. The new channel will have an accessible floodplain and will be re-vegetated with riparian shrubs, wetland sods and a native grass seed mix. Fencing will be installed to exclude livestock and encourage the recovery of the riparian vegetation. Browns Gulch is a tributary to Silver Bow Creek. The project site is located about 4 miles northwest of the city of Butte in Silver Bow County.

I. Location of Project: The project site is located on Browns Gulch, a tributary to Silver Bow Creek, located on property owned by Ueland Ranches, Inc. within Township 3 North, Range 8 West, Sections 6 and 7 in Silver Bow County (Attachment 1).

II. Need for the Project: One goal within Montana Fish, Wildlife and Parks six-year operations plan for the fisheries program is to “restore and enhance degraded fisheries habitats” by implementing habitat restoration projects and administering the Future Fisheries Improvement Program to restore important habitats on private and public lands. This proposed project would help meet this goal.

Browns Gulch is an important tributary to Silver Bow Creek that supports primarily brook trout, but now is experiencing some use by fluvial westslope cutthroat trout associated with an expanding population found in Silver Bow Creek. Presently, a primary limiting factor for aquatic habitat in Browns Gulch is from fine sediment entering the active channel as a result of eroding stream banks. The proposed project site is located on a reach of stream that historically was channelized along the perimeter of a hay field. This stream reach has become entrenched, resulting in significant bank erosion which is contributing substantial sediment loading to the lower five miles of stream (Attachment 2). Based on some recent research on sediment supply, this stream reach was determined to be one of two high priority reaches where bank erosion indices indicated sediment yield was an order of magnitude higher than the rest of Browns Gulch sites examined. This proposed project calls for restoring 800 feet of presently degraded channel

and for implementing a riparian re-vegetation and grazing management plan.

III. Scope of the Project:

This project would involve replacing 800 feet of straightened and deeply incised stream channel with approximately 1,400 feet of meandering channel with an accessible floodplain (Attachment 3). The new channel would be constructed using natural channel designs and would incorporate local materials including sod mats, choir wrapped soil lifts, juniper brush to toe into new stream banks, willow stakes and gravel (Attachment 4). For the most part, the new stream channel would be designed to match final stream bank heights with existing floodplain elevations, minimizing the need for floodplain re-grading. Re-vegetation of stream banks and the floodplain would involve a variety of treatments using willow cuttings. The old channel would be filled in a re-vegetated and the riparian corridor would be fenced with temporary electric fencing to permit full recovery before any livestock grazing was resumed. A grazing plan would have to be approved prior to resumption of any livestock use. This proposed effort would be used as a pilot project in an effort to improve overall aquatic habitat in the Browns Gulch drainage.

The total cost for this project is estimated at \$98,185. Of this total, the Future Fisheries Improvement Program would be contributing up to \$29,960. The remaining funds will come from other sources and from in-kind services:

Contributor	In-kind services	In-kind cash
DEQ 319 Program		\$43,200
Landowners	\$15,700	
Watershed Restoration Coalition	9,325	

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life habitats.

Browns Gulch supports primarily brook trout, but the lower reaches are now being pioneered by fluvial westslope cutthroat trout residing in Silver Bow Creek. Westslope cutthroat trout in Silver Bow Creek are a relatively new phenomenon and are a result of the ongoing clean-up efforts in the drainage. This project potentially would help support the reconnection of this new native fishery to the middle and upper reaches of Browns Gulch. The project would improve fish habitat in a reach of stream where high sediment loading is contributing to the degradation of the lower five miles of stream. Browns Gulch also supports Western Pearlshell mussels. Project construction likely will adversely impact any freshwater mussels currently found within the existing 800-foot project site.

2. Water quantity, quality and distribution.

Short-term increases in turbidity will occur during project construction. To minimize

turbidity, operation of equipment in the stream channel will be minimized to the extent practicable. The Department of Environmental Quality will be contacted to determine narrative conditions required to meet short-term water quality standards and protect aquatic biota (318 authorization). A 310 permit (Montana Natural Streambed and Land Preservation Act) will be obtained from the local conservation district and the U.S. Army Corp of Engineers will be contacted for requirements to meet the federal Clean Water Act (404 permit).

3. Geology and soil quality, stability and moisture.

Soils within the construction footprint, estimated at about 2 acres in area, would be temporarily disturbed during construction. Proposed re-vegetation efforts and changes in riparian grazing management would mitigate for this disturbance.

4. Vegetation cover, quantity and quality.

Vegetation and cover within the project vicinity would be disturbed during the period of construction. Stream banks currently are vegetated with pasture grasses and some mature willow. Proposed re-vegetation efforts; involving sod placement, re-seeding with native grasses, planting of 200 containerized shrubs and the placement of 5,000 willow sprigs; would mitigate this disturbance. Additionally, the installation of temporary riparian fencing and the associated management of the corridor as a temporary grazing enclosure would permit recovery of the riparian vegetation.

5. Aesthetics.

In the short term, aesthetics would be adversely impacted during construction due to ground disturbance and the presence of heavy equipment. The project is expected to take approximately three weeks to complete. In the long term, the proposed project would enhance aesthetics in Browns Gulch by restoring an altered reach of stream and by enhancing the riparian vegetative community.

7. Unique, endangered, fragile, or limited environmental resources.

Westslope cutthroat trout are beginning to pioneer into Browns Gulch from Silver Bow Creek. Westslope cutthroat trout are native to Montana and are classified as a "Species of Special Concern" because of their shrinking distribution and declining numbers. The proposed project is expected to improve overall aquatic habitat in a reach of Browns Gulch, which potentially could benefit westslope cutthroat trout now beginning to utilize the stream. The upper reaches of Browns Gulch currently support a resident population of westslope cutthroat trout.

Browns Gulch also supports a population of Western Pearlshell mussels. The Western Pearlshell mussel is considered a species of concern in Montana. Any freshwater mussel residing in the 800-foot reach of stream proposed for reconstruction likely will be adversely impacted as result of the project.

8. Historic and archeological sites.

The proposed channel excavation has the potential to disturb cultural artifacts, if present. Additionally, the proposed project will require an Army Corp of Engineers 404 permit, where the permittee could not proceed until a “no effect” determination from the Corp or other authorization under the National Preservation Act is received. Therefore, the State Historic Preservation Office will be contacted to determine the need for compliance with the federal historic preservation regulation. Future Fisheries funding would not be made available until a cultural clearance is granted.

VI. Explanation of Impacts on the Human Environment.

7. Access to & quality of recreational and wilderness activities.

The intent of this proposed project is to support reconnection of a newly developing Silver Bow Creek cutthroat trout population to potential spawning and rearing areas in upper Browns Gulch. If successful, the project has the potential to contribute to the recruitment of westslope cutthroat trout into Silver Bow Creek. Expanding fish populations in Silver Bow Creek, as a result of ongoing clean-up efforts, are beginning to produce a recreational fishery.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no funding is provided through the Future Fisheries Improvement Program, the applicant would have to either seek additional sources of funding to complete the project or a reach of Browns Gulch would continue to be degraded and contribute significant sediment loading to the lower 5 miles of the drainage. Fish populations within this short segment of Browns Gulch would remain diminished and the potential to reconnect with a native fishery beginning to develop in Silver Bow Creek would be lost.

2. The Proposed Alternative

The proposed alternative intends to provide partial funding through the Future Fisheries Improvement Program to restore a degraded reach of Browns Gulch and to reduce sediment loading into the lower five miles of the stream. The intent of the project is to help reconnect a newly expanding westslope cutthroat trout population in Silver Bow Creek to the upper reaches of Browns Gulch, where existing habitat could support spawning and rearing use by fluvial fish. Additionally, the installation of riparian fencing and associated changes to grazing management is expected to enhance the riparian vegetative community and improve habitat for riparian dependent wildlife.

VIII. Environmental Assessment Conclusion Section

1. Is an EIS required? No.

We conclude from this review that the proposed activities will have a positive impact on the physical and human environment.

2. Level of public involvement.

The project application to the Future Fisheries Improvement Program has been posted on the Montana Fish, Wildlife and Parks webpage for public comment. No comments have been received to date. The proposed project was reviewed and supported by the public review panel of the Future Fisheries Improvement Program. The proposed project also will be reviewed by the Fish, Wildlife and Parks Commission and funding will be contingent upon their approval. The Environmental Assessment (EA) is being distributed to all individuals and groups listed on the cover letter. The EA also will be published on Montana Fish, Wildlife and Parks webpage: fwp.mt.gov.

3. Duration of comment period?

Public comment will be accepted through 5:00 PM on February 3, 2014.

4. Person responsible for preparing the EA.

Mark Lere, Program Officer
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Fisheries Division
Montana Fish, Wildlife and Parks
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Helena, MT 59620
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MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS
1420 E 6th Ave, PO BOX 200701, Helena, MT 59620-0701
(406) 444-2535

ENVIRONMENTAL ASSESSMENT

Project Title: Browns Gulch Channel Restoration Project

Division/Bureau: Fisheries Division -Future Fisheries Improvement

Description of Project: The Future Fisheries Improvement Program tentatively plans to provide partial funding to a project calling for the restoration of an 800-foot reach of Browns Gulch, a tributary to Silver Bow Creek. The project would replace this straightened and deeply entrenched stream reach with a new, meandering 1,400-foot channel with access to a floodplain. The intent of the project is to reduce sediment loading into the lower five miles of the stream and help reconnect a newly expanding westslope cutthroat trout population in Silver Bow Creek to the upper reaches of Browns Gulch. The proposed project would be located on property owned by Ueland Ranches, Inc. about 4 miles northwest of the city of Butte in Silver Bow County.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats			X			X
2. Water quality, quantity & distribution			X			X
3. Geology & soil quality, stability & moisture			X			X
4. Vegetation cover, quantity & quality			X			X
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources			X			X
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical & archaeological sites					X	X

POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production				X		
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities			X			X
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy				X		
13. Locally adopted environmental plans & goals				X		
14. Transportation networks & traffic flows				X		

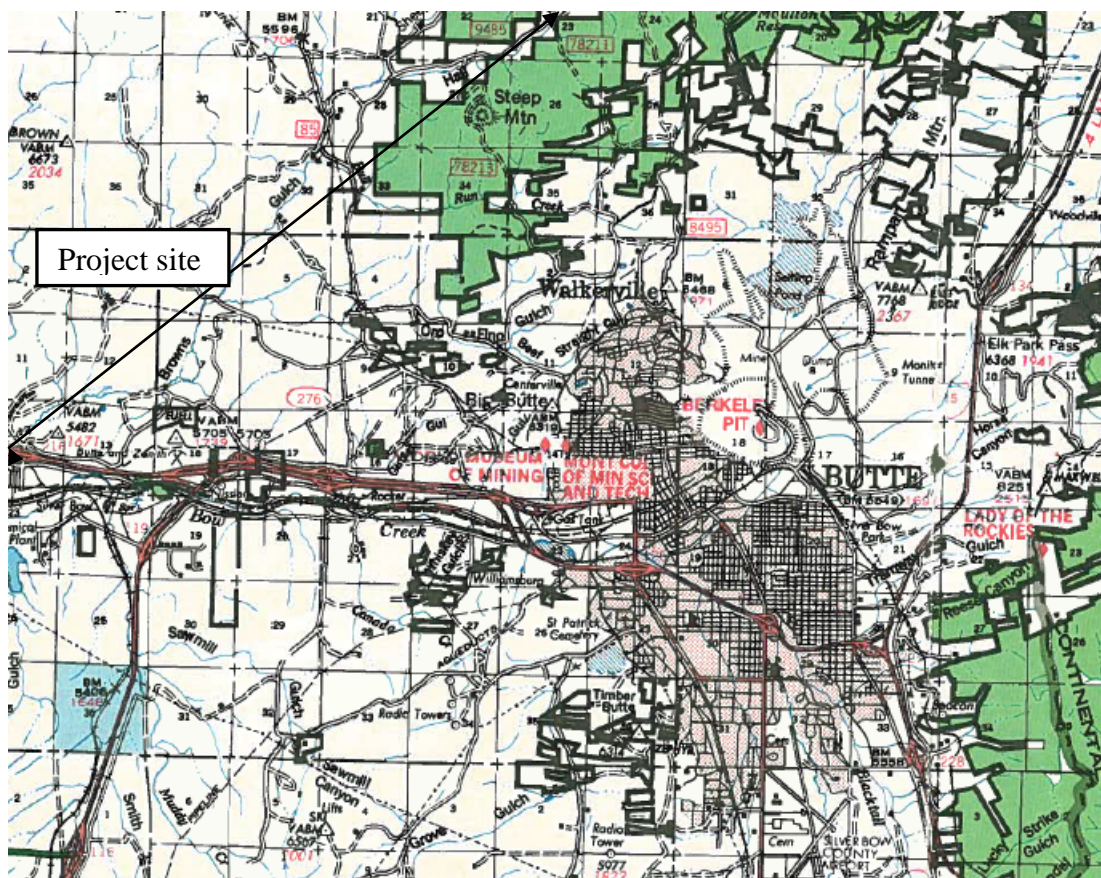
Other groups or agencies contacted or which may have overlapping jurisdiction: Mile High Conservation District, US Fish and Wildlife Service, US Army Corp of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office

Individuals or groups contributing to this EA Will McDowell, Watershed Restoration Coalition.

Recommendation concerning preparation of EIS No EIS required.

EA prepared by: Mark Lere

Date: December 31, 2013



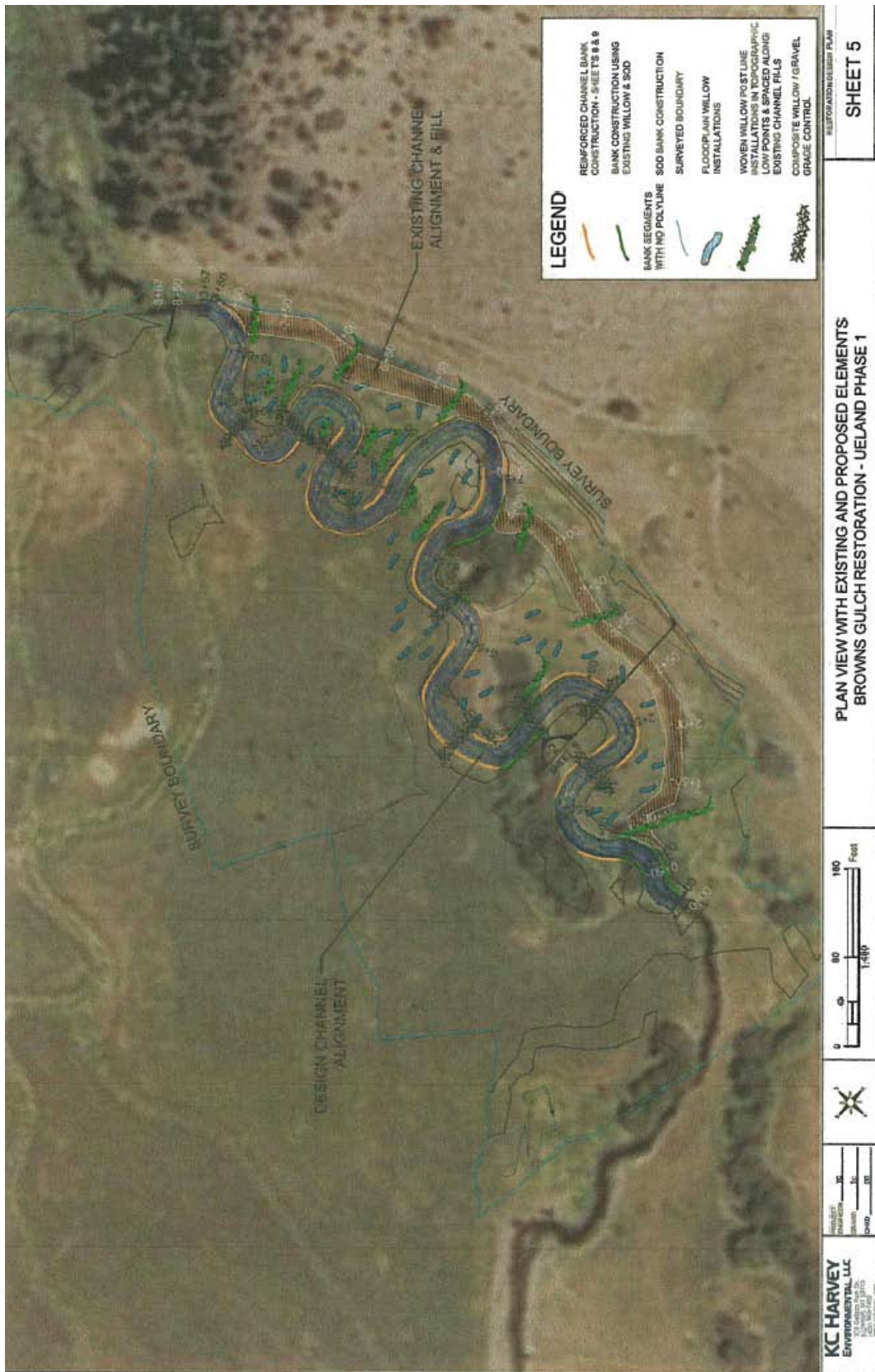
Map of Browns Gulch showing project location.

ATTACHMENT 1



Photo of current conditions on Browns Gulch

ATTACHMENT 2



Proposed restoration treatments for Browns Gulch.
ATTACHMENT 3

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